JUNE 1947
94X224

the hallicrafters co.

SERVICE BULLETIN FOR MODEL SX-42

GENERAL: Model SX-42 is a 15 tube AM/FM superheterodyne radio receiver incorporating six bands of AM reception, two of which are used also for the reception of frequency modulated signals. Provision for variable sensitivity control, optional AVC, noise limiting, BFO pitch, tone, headset reception, standby operation, and band-spreading are provided. Six degrees of selectivity are also provided for manually altering the selectivity of the receiver on the first four bands.

FIG. 1. FRONT VIEW OF RECEIVER

FREQUENCY COVERAGE:

BAND	COVERAGE	TYPE OF RECEPTION
1	540 to 1620 kilocycles	AM/CW
2	1.62 to 5 megacycles	AM/CW
3	5 to 15 megacycles	AM/CW
4	15 to 30 megacycles	AM/CW
5	27 to 55 megacycles	AM/FM/CW
6	55 to 110 megacycles	AM/FM/CW

Adequate overlap is provided at ends of all bands.

REAR PANEL CONNECTIONS: Consists of AC line cord with plug, antenna and ground connector strip, speaker connector strip, phono input jack, and d-c power input socket.

POWER SUPPLY DATA: AC operation - 105 to 125 volts, 50/60 cycles single phase source. (Also 110/130/150/220/250 volt, 25 to 60 cycles single phase source with special power transformer available, Hallicrafters part no. 52C131.) Power consumption is 110 watts at 117 volts a-c.

DC operation - filament 6.3 volts at 5 amperes; "B" supply 270 volts at 150 ma. (The 6 volt battery drain for vibrator type supply for "B" voltage will run about 16 amperes.)

TUBE TYPES AND FUNCTIONS:

TYPE	FUNCTION	TYPE	FUNCTION
6AG5	1st RF amplifier	6H6	discriminator
6AG5	2nd RF amplifier	6SL7	audio inverter & amplifier
7F8	local oscillator & converter	6V6	audio output
6SK7	1st IF amplifier	6V6	audio output
6SG7	2nd IF amplifier	7A4	beat frequency oscillator & f-m tuning amplifier
6H6	2nd detector (AM) and noise limiter	OD3VR/150	voltage regulator
7H7	1st f-m limiter amplifier	5U4G	high voltage rectifier
7H7	2nd f-m limiter-amplifier		

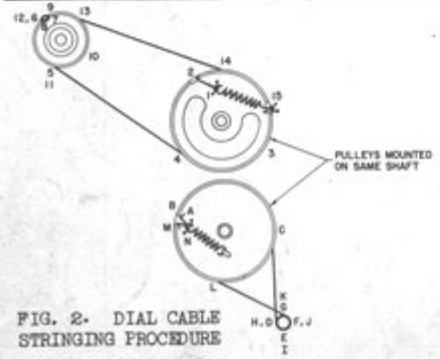


FIG. 2. DIAL CABLE STRINGING PROCEDURE

HOW TO RESTRING DIAL CORD

To restring the main tuning dial cord, cut a 25" length of 18 lb. test dial cord and tie one end to the tension spring of the main tuning capacitor drive pulley at position "1", Fig. #2. Follow the numbers "1" through "14", wind the cord on the pulley and knob drive shaft. At position "14", stretch the tension spring and tie cord securely. Cut off excess cord. To restring the bandspread tuning dial cord, follow the same procedure as explained above except start at position "A" and proceed through position "N" on tension spring.

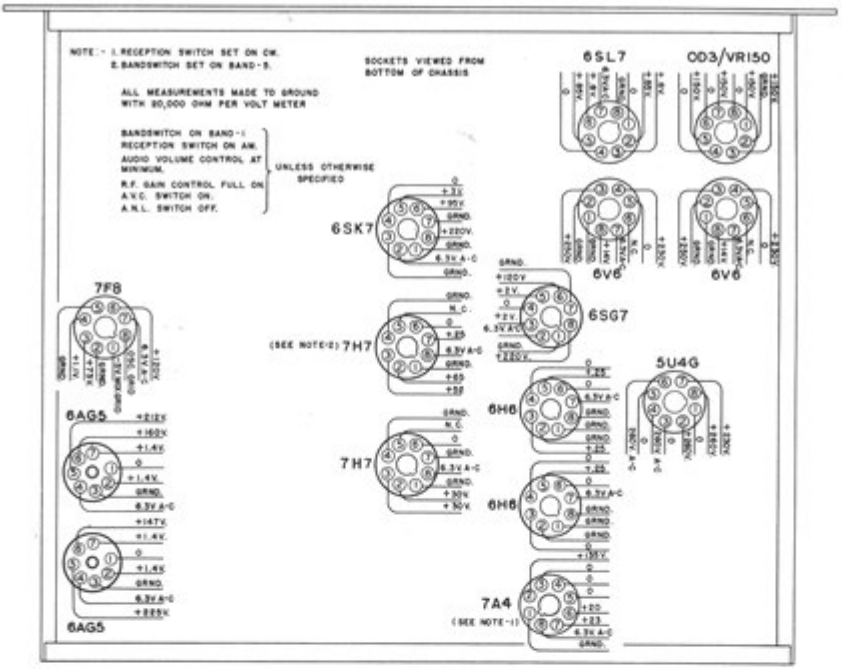


FIG 3. VOLTAGE CHART

REPLACEMENT PARTS LIST FOR MODEL SX-42 RADIO RECEIVER

REF. NO.	DESCRIPTION	HALLICRAFTER'S PART NUMBER	NET PRICE PER COMPONENT
	CAPACITORS		
C-1,2,16,17,30,31	Trimmer, dual mounting assembly	44B165	$ .30
C-3,4,6,18,19, 20,21,32,33, 34 & 35	R-F Trimmer (2-6 mmf) Ceramic	44B179	*
C-5	Capacitor (2 mmf 10%) Molded Bakelite	49A002	.10
C-7	Capacitor (5 mmf ±.5 mmf .00075 T.C.) Ceramic	CC20UK050D	.30
C-8,11,23,25	Capacitor (.05 mfd 150V) Paper	46A094	.15
C-9	Capacitor, Main Tuning	48C158	9.75
C-10	Capacitor, Bandspread	48C159	5.50
C-12,26	Capacitor (.01 mfd +40-15% 400V) Paper	46AB103J	.25
C-13,15,27,29, 50,59,63,74, 86,87,91,100, 104,109 & 112	Capacitor (.02 mfd +40-15% 400V) Paper	46AW203J	.10
C-14,28	Capacitor (5600 mmf 20% 500V) mica	CM35A562M	.50
C-22,36	Capacitor (15 mmf 10% .00075 T.C.) Ceramic	CC20UK150K	.10
C-24	Capacitor (.25 mfd +40-15% 200V) paper	46AT254J	.20
C-37,97	Capacitor (47 mmf 10% 500V) Mica	CM20A470K	.15
C-38	Capacitor (.01 mfd 150V) Paper	46A095	.15
C-39,49	Capacitor (110 mmf 5% .00075 T.C.) Ceramic	CC25UK111J	.15
C-40,41	Trimmer (4-20 mmf) Ceramic	44A078	.35
C-42,119	Trimmer (6-8 mmf) Mica	44A205	*
C-43,45	Trimmer (2-6 mmf) Ceramic	44A077	.35
C-44	Capacitor (4700 mmf 2% 500V) Mica	CM35C472G	1.10
C-46	Capacitor (1500 mmf 2% 500V) Mica	CM30C152G	*
C-47	Trimmer (4-20 mmf) Ceramic	44A076	.35
C-48	Capacitor (470 mmf 2% 500V) Mica	CM20A471G	.25
C-51	Capacitor (220 mmf 2% 500V) Mica	CM25E221G	.20
C-52,66,71,84,99, 108,118 & 126	Capacitor (.05 mfd +40-15% 400V) Paper	46AW503J	.15
C-57,105	Capacitor, Variable (CW Pitch & Crystal Phasing)	48A064	1.00
C-58,60,61	Trimmer Assembly (Triple, 1.5 mmf to 25 mmf, 1.3 mmf to 15 mmf, 1.5 mmf to 25 mmf)	44B164	.45

REPLACEMENT PARTS LIST FOR MODEL SX-42 RADIO RECEIVER

REF. NO.	DESCRIPTION	HALLICRAFTER'S PART NUMBER	NET PRICE PER COMPONENT
C-62,70,85	Capacitor (.05 mfd +40-15% 200V) Paper	46AU503J	$ .10
C-75,79,81,92, 122,106,121	Capacitor (.01 mfd +40-15% 400V) Paper	46AW103J	.10
C-78	Capacitor (22 mmf 10% 500V) Mica	CM20A220K	.15
C-80,120,124,125	Capacitor (7 mmf 10% .00075 T.C.) Ceramic	CC20UK070K	.20
C-82,83,89,90	Capacitor (180 mmf 10% 500V) Mica	CM20A181K	.15
C-98	Capacitor (560 mmf 10% 500V) Mica	CM25A561K	.20
C-107	Capacitor (10 mfd +75-10% 25V) Electrolytic	45A064	.35
C-110	Capacitor (680 mmf 10% 500V) Mica	CM25A681K	.25
C-111,113,116	Capacitor, Electrolytic	45A041	1.35
C-114,115,117	Capacitor (.01 mfd 40-15% vdcw) Paper	46AG103J	.15
C-123	Capacitor (22 mmf 10% .00075) Ceramic	CC20UK220K	.30

RESISTORS

R-1,10,51,52	Resistor (1,000,000 ohm 20% 1/2 watt) Carbon	RC20AE104M	.10
R-2	Resistor (12 ohm 10% 1/2 watt) Carbon	RC20AE120K	.10
R-3,15	Resistor (150 ohm 10% 1/2 watt) Carbon	RC20AE151K	.10
R-4	Resistor (47,000 ohm 10% 1 watt) Carbon	RC30AE473K	.10
R-5,9,14,19	Resistor (15 ohm 20% 1/2 watt) Carbon	RC20AE150M	.10
R-6,13,17,20	Resistor (2200 ohm 20% 1/2 watt) Carbon	RC20AE222M	.10
R-7,18,40,67, 74 & 78	Resistor (1200 ohm 10% 1/2 watt) Carbon	RC20AE122K	.10
R-12	Sensitivity Control (10,000 ohm Pot. 1/2 watt)	25A548	.40
R-16,22,32,70,86	Resistor (1000 ohm 20% 1/2 watt) Carbon	RC20AE102M	.10
R-21,48,58	Resistor (2.2. megohm 20% 1/2 watt) Carbon	RC20AE225M	.10
R-23	Resistor (47 ohm 20% 1/2 watt) Carbon	RC20AE470M	.10
R-25,56,75,69	Resistor (10,000 ohm 10% 1/2 watt) Carbon	RC20AE103K	.10
R-26	Resistor (5600 ohm 10% 1/2 watt) Carbon	RC20AE562K	.10
R-27	Resistor (470 ohm 20% 1/2 watt) Carbon	RC20AE471M	.10
R-28	Resistor (68,000 ohm 10% 1 watt) Carbon	RC30AE683K	.10
R-29	Resistor (120 ohm 10% 1/2 watt) Carbon	RC20AE121K	.10
R-30,41,42,64,88	Resistor (1 megohm 20% 1/2 watt) Carbon	RC20AE105M	.10
R-31	Resistor (220 ohm 10% 1/2 watt) Carbon	RC20AE221K	.10
R-34	Variable resistor (500 ohm) "S" type	25C022	1.00
R-36	Resistor (1.2 megohm 10% 1/2 watt) Carbon	RC20AE125K	.10
R-24	Resistor (22 ohm 10% 1/2 watt) Carbon	RC20AE220K	.10
R-38	Resistor (270 ohm 10% 1/2 watt) Carbon	RC20AE271K	.10
R-39,59,87	Resistor (56,000 ohm 10% 1/2 watt) Carbon	RC20AE563K	.10
R-43	Resistor (22,000 ohm 10% 1/2 watt) Carbon	RC20AE223K	.10
R-44	Resistor (2 megohm 20% 1/2 watt) Carbon	RC20AE205M	.10
R-45,95,101,102	Resistor (330 ohm 20% 1 watt) Carbon	RC30AE331M	.10
R-46,57,71,94	Resistor (47,000 ohm 10% 1/2 watt) Carbon	RC20AE473K	.10
R-49,99	Resistor (330,000 ohm 10% 1/2 watt) Carbon	RC20AE334K	.10
R-50,97	Resistor (33 ohm 10% 1/2 watt) Carbon	RC20AE330K	.10
R-5ß,66	Resistor (470,000 ohm 20% 1/2 watt) Carbon	RC20AE474M	.10
R-54,37	Resistor (100,000 ohm 10% 1 watt) Carbon	RC30AE104K	.10
R-55	Resistor (33,000 ohm 10% 1/2 watt) Carbon	RC20AE333K	.10
R-60	Resistor (330 ohm 10% 1/2 watt) Carbon	RC20AE331K	.10
R-65	Resistor (150,000 ohm 10% 1/2 watt) Carbon	RC20AE154K	.10
R-68	Resistor (5100 ohm 5% 1/2 watt) Carbon	RC20AE512J	.10
R-72	Resistor (100 ohm 10% 1/2 watt) Carbon	RC20AE101K	.10
R-73	Volume Control (1 meg. pot. 1/2 watt) includes power switch SW-8	25A549	.50
R-76,92	Resistor (56 ohm 10% 1/2 watt) Carbon	RC20AE560K	.10
R-77,98	Resistor (1000 ohm 10% 2 watt) Carbon	RC40AE102K	.10
R-79,80,81,83	Resistor (220,000 ohm 10% 1/2 watt) Carbon	RC20AE224K	.10
R-82,100	Resistor (8200 ohm 10% 1/2 watt) Carbon	RC20AE822K	.10
R-84	Resistor (220 ohm 10% 2 watt) Carbon	RC40AE221K	.10
R-85	Resistor (2000 ohm 5% 10 watt) Wirewound	24BG202D	.30
R-89	Resistor (68,000 ohm 10% 1/2 watt) Carbon	RC20AE683K	.10
R-90	Resistor (15 ohm, 20% 1/2 watt) Carbon	RC20AE150M	.10
R-91,93	Resistor (4700 ohm 10% 1/2 watt) Carbon	RC20AE472K	.10
R-96	Resistor (680 ohm, 20% 1/2 watt) Carbon	RC20AE681M	.10

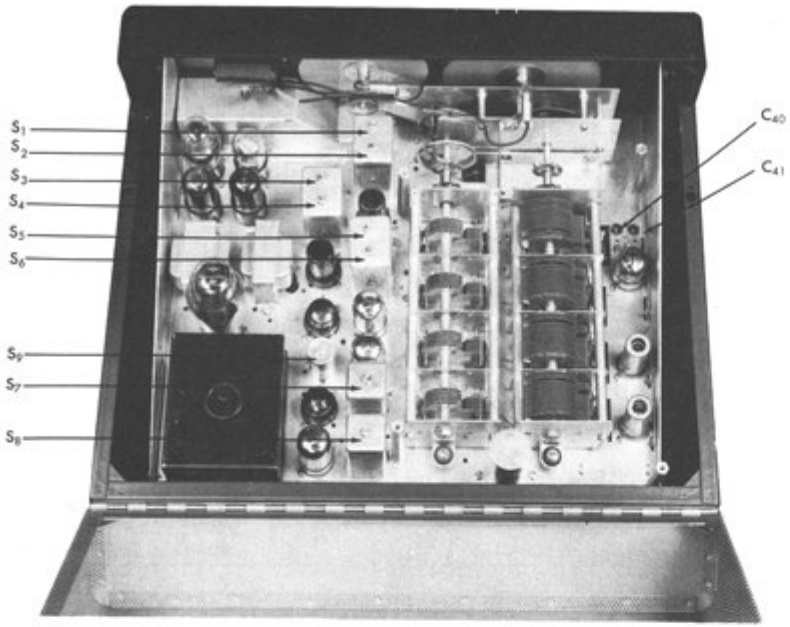
REPLACEMENT PARTS LIST FOR MODEL SX-42 RADIO RECEIVER

REF. NO.	DESCRIPTION	HALLICRAFTER'S PART NUMBER	NET PRICE PER COMPONENT
	PILOT LAMP		
LM-1,2,3	6-8 volt; 250 ma; bayonnet type	39A018	$ .10
LM-4	6-8 volt; 150 ma; bayonnet type	39A019	.10
	PLUG		
PL-1	Shorting plug; octal	35A015	.20
	SWITCHES		
SW-1	Band Selector	60D241	6.60
SW-2	Selectivity	60A234	1.35
SW-3	Reception	60C235	1.25
SW-4	Tone	60C236	.75
SW-5,6,7	AVC, Noise Limiter, Receiver-Standby toggle with bat handle; SPST	60A138	.30
SW-8	Power-off; not a replaceable part; shown for reference only; part of volume control R-73		
	TRANSFORMERS		
T-1	Antenna Coil; Band #6	51B829	.25
T-2	Antenna Coil; Band #5	51B828	.25
T-3	Antenna Coil; Band #4	51B827	.60
T-4	Antenna Coil; Band #3	51B826	.60
T-5	Antenna Coil; Band #1	51B823	.70
T-6	R-F Coil; Band #6	51B833	.45
T-7	R-F Coil; Band #5	51B832	.25
T-8	R-F Coil; Band #4	51B831	.60
T-9	R-F Coil; Band #3	51B830	.60
T-10	R-F Coil; Band #2	51B825	.70
T-11	R-F Coil; Band #1	51B824	.65
T-13	Converter Coil; Band #5	51B844	.25
T-14	Converter Coil; Band #4	51B843	.60
T-15	Converter Coil; Band #3	51B842	.65
T-16	Converter Coil; Band #2	51B841	.70
T-17	Converter Coil; Band #1	51B840	.70
T-18	Oscillator Coil; Band #6	51B839	.70
T-19	Oscillator Coil; Band #5	51B838	.25
T-20	Oscillator Coil; Band #4	51B837	.40
T-21	Oscillator Coil; Band #3	51B836	.40
T-22	Oscillator Coil; Band #2	51B835	.40
T-23	Oscillator Coil; Band #1	51B834	.40
T-24	1st I-F Transformer	50C198	2.50
T-25	2nd I-F Transformer	50C190	3.00
T-26	3rd I-F Transformer	50C197	2.70
T-27	Discriminator Transformer	50C191	2.00
T-28	BFO Transformer	54C032	2.00
T-29	Audio Output Transformer	55B077	2.00
T-30	Power Transformer	52C141	*
	CHOKES AND COILS		
L-1	R-f choke; oscillator	53B008	.20
L-2	I-f coupling coil	53B104	*
L-3	Filter choke	56B067	1.60
L-4	R-f choke; filament	53B009	.20
L-5	Screen choke	53A117	.20
L-6	Screen choke	53A116	.20
L-7	Cathode Choke	53A118	.20

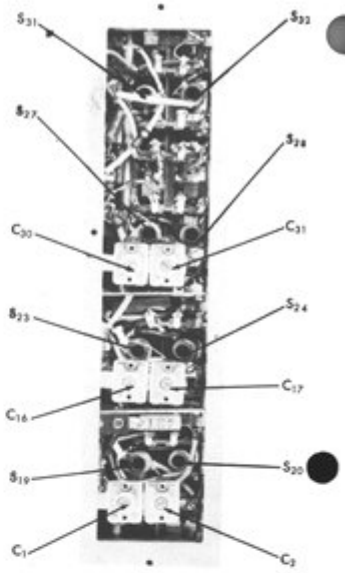
REPLACEMENT PARTS LIST FOR MODEL SX-42 RADIO RECEIVER

REF. NO.	DESCRIPTION	HALLICRAFTER'S PART NUMBER	NET PRICE PER COMPONENT
	TERMINAL STRIPS		
TS-1	Antenna-ground connections	88A567	$ .10
TS-2	Same as TS-1; speaker connections		
	METER		
M-1	Carrier level; tuning meter	82B100	11.00
	CRYSTALS		
X-1	455 kc crystal assembly	19A123	2.60
	JACKS		
J-1	PHONO jack	36A029	.10
J-2	PHONES jack	36B030	.75
	LINE CORD		
	A-c line cord with two prong plug	87A078	.45
	SOCKETS		
	Tube sockets; octal type; plain	6A035	.10
	Tube sockets; midget ceramic	6A193	.50
	Tube sockets; loktal type; bakelite	6A213	.15
	Tube sockets; loktal type; mica	6A223	.15
	Pilot light socket; main tuning	6A258	.15
	Pilot light socket; logging	6A259	.10
	Pilot light socket; bandspread	6A260	.15
	Pilot light socket; tuning meter	6A262	.15
	KNOBS		
	VOLUME control knob assembly	15A060	.50
	PITCH CONTROL and CRYSTAL PHASING knob assembly	15A061	.40
	RECEPTION control knob assembly	15A045	.40
	SELECTIVITY control knob assembly	15A063	.40
	TONE control knob assembly	15A062	.40
	SENSITIVITY control knob assembly	15A064	.40
	BAND SELECTOR control knob assembly	15A057	1.50
	MAIN TUNING knob and dial assembly 0-100 Div.	41X8403	2.20
	BANDSPREAD knob	15A054	.55
	MISCELLANEOUS COMPONENTS		
	Tube shield (Miniature tube)	69A065	.20
	Adjustable tuning core	77A068	.15
	Gear drive assembly	71C177	22.50
	Main tuning dial	83C265	1.20
	Bandspread dial	83B267	.80
	Bandspread dial escutcheon less window	7B019	.40
	Bandspread escutcheon window	22A160	.10
	Main tuning dial escutcheon less pointer	7D020	2.50
	Main tuning pointer	82A110	.10
	Main tuning escutcheon fastener clip	76A364	.10
	Bandspread escutcheon fastener clip	76A309	.10

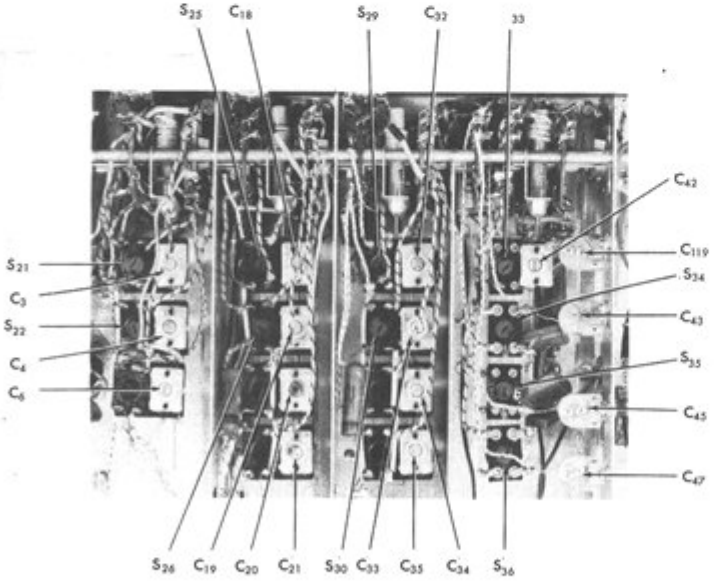
* Prices available on request. *Prices subject to change without notice.*



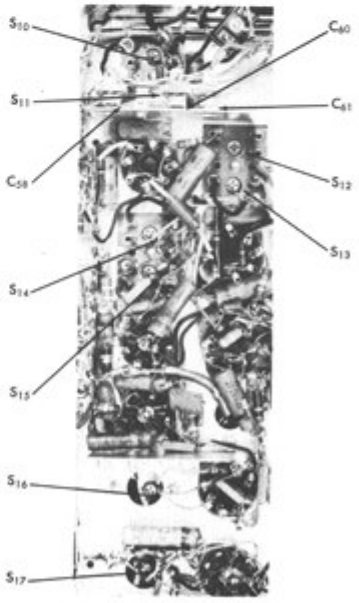
TOP VIEW



SIDE VIEW



BOTTOM VIEW



BOTTOM VIEW

FIG. 5. TOP, BOTTOM AND SIDE VIEWS SHOWING ADJUSTMENT POINTS

ALIGNMENT INSTRUCTIONS

EQUIPMENT:

1. Signal generator capable of the ranges indicated in the alignment chart, including a 400 cycle audio modulator.
2. Output meter capable of handling 1.5 watts of audio power.
3. Standard RMA dummy antenna---Consisting of a 200 MMF cond in series with a 20 uh R.F. choke shunted by a 400 MMF condenser in series with 300 OHM resistor.
4. Non-metallic screw driver.
5. One 300 ohm carbon resistor (Dummy ant for bands #5 and 6.)

CONNECTIONS: Connect the generator "cold" lead to the receiver chassis; the "hot" lead is connected as indicated in the chart.

Connect the output meter across the 500 ohm speaker terminals.

CONTROL SETTINGS: Turn VOLUME control clockwise and allow about 15 minutes for tubes to heat up, then set the receiver controls as follows:

VOLUME maximum	BANDSPREAD zero
SENSITIVITY maximum	*RECEPTION AM
AVC off	CRYSTAL PHASING O
NOISE LIMITER noise limiter, off	CW PITCH O
	TONE optional
*SELECTIVITY crystal sharp	RECEIVE-STANDBY receive

* For f-m alignment set RECEPTION control at FM and SELECTIVITY switch at normal broad.

RADIO RECEIVER MODEL SX-42
I-F ALIGNMENT INSTRUCTIONS

455 K.C. I-F ALIGNMENT:

A. Set Controls as follows:

1. Bandswitch on #1 Band.
2. M.T. Dial set to approximately 1 m.c.
3. R. F. gain full on.
4. ANL off, AVC off, Standby on.
5. FM-AM switch on AM.
6. Tone control on HiFi.
7. I.F. Selectivity switch on sharp I.F.
8. Connect output meter to 500 ohm speaker terminal.

B. Connect hot side of signal generator thru a .1 capacitor to the #1pin of 7F8 mixer osc. stage. Connect cold side of generator to the receiver chassis.

C. Increase generator output until a signal is heard and then align slugs S_1, S_3, S_5, S_{10}, S_{12}, and S_{14} for maximum output.

D. Turn on BFO and adjust pitch control knob to zero and then adjust slug S_8 until the beat note is heard. Continue turning S_8 until the beat note is zero beat with the generator signal.

E. Next adjust pitch control knob until the BFO note is about 1000 cycles off zero beat.

F. Turn selectivity knob to broad crystal and while slowly adjusting S_{10}, "rock" the signal generator until the output, as observed on the output meter, decreases and then slowly increases. Tune signal generator to the other side of zero beat and adjust crystal phasing knob for the null point.

Crystal phasing is left now in this position for this and following adjustments. At the point of minimum output, the slug S_{10} is correctly set. This occurs between two maximum outputs, one with slug turned further in, and one with slug turned further out.

G. Next turn to sharp crystal and with C_{61} at near minimum capacity, slowly turn trimmer in (increase capacity) while "rocking" the signal generator and adjust for maximum output meter reading. It may be necessary to reduce the set gain to prevent needle on output meter from hitting right hand stop. This is done by turning the A.F. gain control down as well as reducing generator output to prevent overload. Volume control is left full on. After maximum output has been reached from the sharp crystal adjustment, turn trimmer further inward until a drop of about 2DB occurs. At this point the sharp crystal will have a very good selectivity without sacrificing too much gain.

H. Next, tune I-F generator to exact crystal frequency and by using the A.F. gain control, adjust for an output meter reading of about 3/4 of full scale reading. Now turn to broad crystal and note the drop and its reading on the output meter. Then switch to medium crystal and with C_{60} at near minimum capacity, slowly adjust trimmer for increase in capacity, while rocking generator. When the output meter reaches the point that is

about midway between the output reading in sharp crystal and in broad crystal, the medium crystal adjustment is complete.

J. Return to sharp crystal and rock signal generator for maximum output (adjust A.F. gain control for a suitable reading). When the signal generator is on exact crystal frequency, switch over to sharp I-F and repeak slugs S_1, S_3, S_5, S_{12}, S_{14}, and C58 for maximum output. Repeat step "D".

10.7 M.C. I-F ALIGNMENT:

A. Set controls as follows: Bandswitch on #5 Band, M.T. Dial about center scale. FM-AM switch on AM-ANL off, AVC off, Tone Control on Hi Fi- AF gain at maximum, R.F. gain at maximum.

B. Same as "B" in 455 K.C. I-F alignment.

C. Increase generator output (set at 10.7 mc) until a signal is heard and adjust slugs S_4, S_6, S_9, S_{13}, S_{15} for maximum output. As the signal increases, reduce generator output to prevent overloading. After S_4, S_6, S_9, S_{13}, S_{15} are set for maximum output then set slugs S_2, S_{11}, for maximum output. Do not readjust the slugs S_4, S_6, S_9, S_{13}, S_{15}.

D. With a moderately loud signal now being received, switch over to CW on and adjust Slug S_{17} (after having set the pitch control knob to zero on dial) for zero beat. The BFO adjustment is now complete.

E. Switch to FM position on AM-FM switch and adjust slug S_{16} for maximum output. Then adjust slug S_7 for null, or minimum output, as indicated on output meter. Next, slowly rock signal generator either side of 10.7 mc. and observe the maximum output readings obtained. If the outputs, either side of center are unequal, they may be equalized by adjusting slug S_{16}. When the balance has been obtained the FM adjustment is complete. Note: Make sure that the output meter is not off full scale when checking balance. Control this by reducing A.F. gain control.

R. F. ALIGNMENT

DUMMY ANT. IN SERIES WITH SIG. GENERATOR	CONNECTION OF SIG. GENERATOR OUTPUT TO RECEIVER	SIGNAL GEN. FREQUENCY SETTING	BAND SWITCH SETTING	RECEIVER DIAL SETTING	ADJUST SLUG, PADDER, OR TRIMMER NO.	TRIMMER DESCRIPTION	TYPE OF ADJUSTMENT -MAKE ADJUSTMENT FOR:	BAND SPREAD SETTING
BAND #1 ADJUSTMENT								
RMA	A-1 ON ANT. STRIP	1.4 MC	.54 - 1.62	1.4 MC	C47	osc.	Calibration	At zero
RMA	AND GROUND	.6 MC	.54 - 1.62	.6 MC	S36	osc.	Calibration	At zero
RMA	"	1.4 MC	.54 - 1.62	1.4 MC	C6	ant.	Max. Output	At zero
RMA	"	1.4 MC	.54 - 1.62	1.4 MC	C21	band pass	Max. Output	At zero
RMA	"	1.4 MC	.54 - 1.62	1.4 MC	C35	mixer	Max. Output	At zero
BAND #2 ADJUSTMENT								
RMA	A-1 ON ANT. STRIP	4.0 MC	1.62 - 5.0	4.0 MC	C45	osc.	Calibration	At zero
RMA	AND GROUND	2.0 MC	1.62 - 5.0	2.0 MC	S35	osc.	Calibration	At zero
RMA	"	4.0 MC	1.62 - 5.0	4.0 MC	C20	ant.	Max. Output	At zero
RMA	"	4.0 MC	1.62 - 5.0	4.0 MC	C34	mixer	Max. Output	At zero
BAND #3 ADJUSTMENT								
RMA	A-1 ON ANT. STRIP	14.0 MC	5 - 15	14.0 MC	C43	osc.	Calibration	At zero
RMA	AND GROUND	7.0 MC	5 - 15	7.0 MC	S34	osc.	Calibration	At zero
RMA	"	14.0 MC	5 - 15	14.0 MC	C4	ant.	Max. Output	At zero
RMA	"	14.0 MC	5 - 15	14.0 MC	C19	r-f	Max. Output	At zero
RMA	"	14.0 MC	5 - 15	14.0 MC	C33	mixer	Max. Output	At zero
RMA	"	7.0 MC	5 - 15	7.0 MC	S22	ant.	Max. Output	At zero
RMA	"	7.0 MC	5 - 15	7.0 MC	S26	r-f	Max. Output	At zero
RMA	"	7.0 MC	5 - 15	7.0 MC	S30	mixer	Max. Output	At zero

DUMMY ANT. IN SERIES WITH SIG. GENERATOR	CONNECTION OF SIG. GENERATOR OUTPUT TO RECEIVER	SIGNAL GEN. FREQUENCY SETTING	BAND SWITCH SETTING	RECEIVER DIAL SETTING	ADJUST SLUG, PADDER, OR TRIMMER NO.	TRIMMER DESCRIPTION	TYPE OF ADJUSTMENT -MAKE ADJUSTMENT FOR!	BAND SPREAD SETTING
			BAND #4 ADJUSTMENT					
RMA	A-1 ON ANT. STRIP AND GROUND	28 MC	15-30	28 MC	C42	osc.	Calibration	Zero
RMA	"	18 MC	15-30	18 MC	S33	osc.	Calibration	Zero
NOTE: With a 28 mc signal from the signal generator, set the band-spread dial to 28 mc and locate the signal with the main tuning dial. This should fall near the 10 meter mark on the main tuning dial. Shift generator frequency to 29 mc and locate signal with the B.S. dial. If 29 mc falls low in calibration, trimmer C119 must be increased in capacity, if 29 mc falls high in calibration, C119 must be reduced in capacity. If it is necessary to adjust C119, the above two calibration adjustments must be repeated.								
RMA	A-1 ON ANT. STRIP AND GROUND	28 MC	15-30	10 MTR. B.S. MARK	C3	ant.	Max. Output	28 MC
RMA	"	28 MC	15-30	"	C18	r-f	Max. Output	28 MC
RMA	"	28 MC	15-30	"	C32	mixer	Max. Output	28 MC
RMA	"	18 MC	15-30	18 MC	S21	ant.	Max. Output	Zero
RMA	"	18 MC	15-30	18 MC	S25	r-f	Max. Output	Zero
RMA	"	18 MC	15-30	18 MC	S29	mixer	Max. Output	Zero

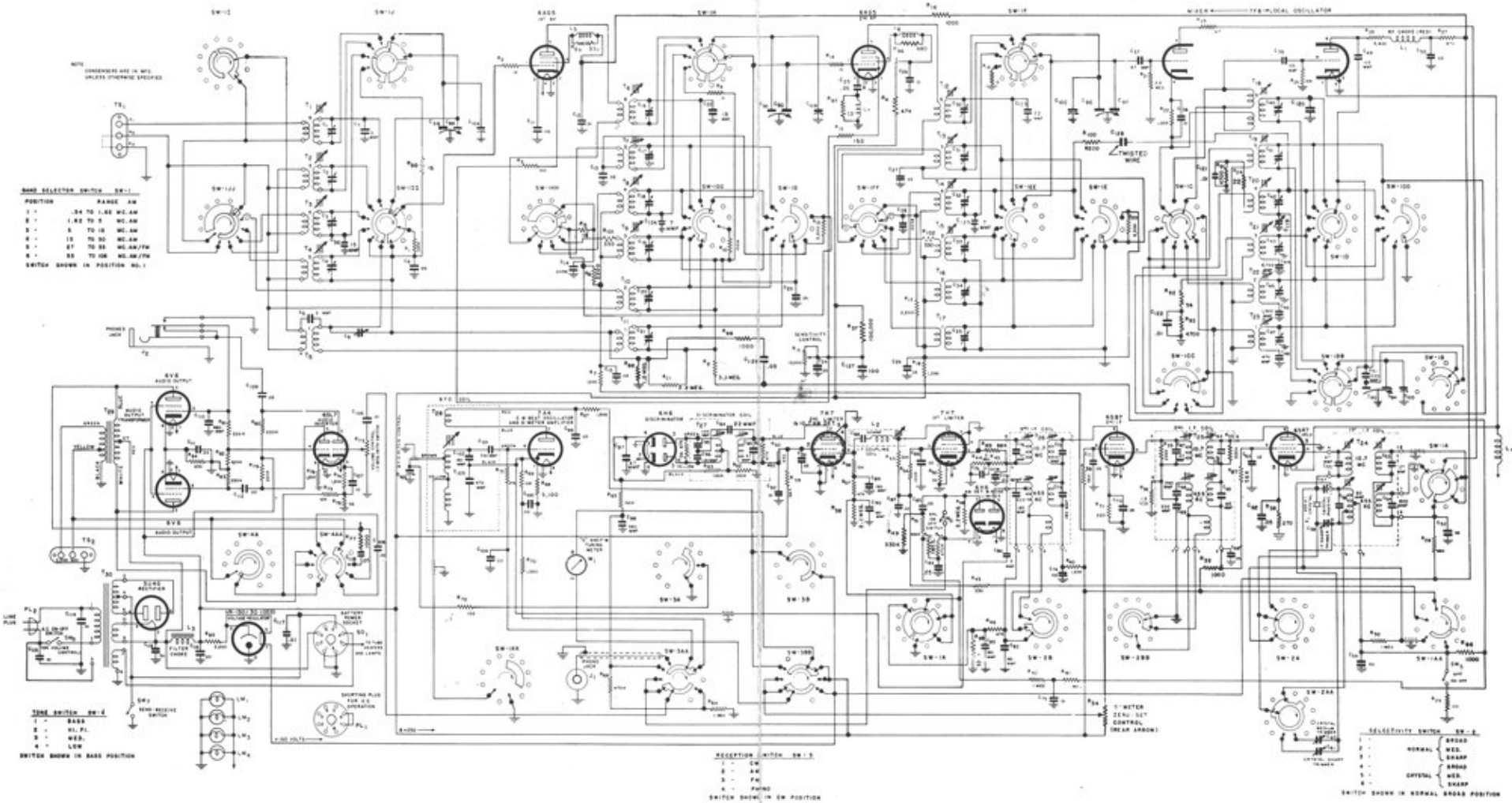
NOTE: The oscillator tracks high on all bands except where dial scale is marked #83D335. When this scale is used, the oscillator tracks on the low side on band #4.

BAND #5 ADJUSTMENT

300 ohms	A-1 ON ANT. STRIP AND GROUND	50 MC	28-55	50 MC	C41	osc.	Calibration	Zero
300 ohms	"	30 MC	28-55	30 MC	S32	osc.	Calibration	Zero
300 ohms	"	50 MC	28-55	50 MC	C2	ant.	Max. Output	Zero
300 ohms	"	50 MC	28-55	50 MC	C17	r-f	Max. Output	Zero
300 ohms	"	50 MC	28-55	50 MC	C31	mixer	Max. Output	Zero
300 ohms	"	30 MC	28-55	30 MC	S20	ant.	Max. Output	Zero
300 ohms	"	30 MC	28-55	30 MC	S24	r-f	Max. Output	Zero
300 ohms	"	30 MC	28-55	30 MC	S28	mixer	Max. Output	Zero
NOTE: Remove plate from left side of chassis for Band #5 and #6 R.F. adjustment.								

BAND #6 ADJUSTMENT

300 ohms	A-1 ON ANT. STRIP AND GROUND	105 MC	55-108	105 MC	C40	osc.	Calibration	Zero
300 ohms	"	60 MC	55-108	60 MC	S31	osc.	Calibration	Zero
300 ohms	"	105 MC	55-108	105 MC	C1	ant.	Max. Output	Zero
300 ohms	"	105 MC	55-108	105 MC	C16	r-f	Max. Output	Zero
300 ohms	"	105 MC	55-108	105 MC	C30	mixer	Max. Output	Zero
300 ohms	"	60 MC	55-108	60 MC	S19	ant.	Max. Output	Zero
300 ohms	"	60 MC	55-108	60 MC	S23	r-f	Max. Output	Zero
300 ohms	"	60 MC	55-108	60 MC	S27	mixer	Max. Output	Zero



89D210K

FIG. 4. SCHEMATIC WIRING DIAGRAM